

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC

In the matter of:)	
)	
Amendment of Part 97 of the Commission's)	
Rules to Introduce A New 8 Meter Band to)	RM-11843
The Amateur Radio Service.)	
)	

**COMMENTS OF REC NETWORKS AND
 MICHELLE BRADLEY, KU3N**

I. INTRODUCTION

1. REC Networks (“REC”), through its founder, Michelle Bradley, KU3N (“Bradley”), (collectively “REC/KU3N”) is a leading advocate for a citizen’s access to spectrum with a heavy focus on the Low Power FM (LPFM) broadcast stations as well as full-service noncommercial educational (NCE) broadcast stations and non-broadcast services such the Amateur Radio Service. Bradley has been a licensed amateur radio operator since 1987.¹ In this pleading, REC/KU3N expresses continuing interest in the *Petition for Rulemaking* and offers some analysis on comments made by others in this proceeding.²

**II. THE RECORD SUPPORTS THE INTRODUCTION OF NEW BAND
 BETWEEN 10 AND 6 METERS TO PROMOTE EXPERIMENTATION**

2. So far, there has been a considerable amount of comments made in support of a new amateur allocation at 8 meters (40 MHz) in order to harmonize North American efforts with current activity taking place in Europe in this spectrum. Supporters of the petition have stated that the new band would foster new innovations³, spur experimentation⁴, grow the use of digital

¹ - An express comment filed in ECFS on June 27, 2019 was attributed to “Michelle Bradley, KU3N”. This comment was not filed by REC/KU3N and those should not be construed as a comment by the petitioner. The comment was merely a generic support for the instant petition.

² - Since this pleading is being filed prior to the comment deadline, REC/KU3N may make a subsequent filing, even if after the comment deadline to address any additional comments raised by parties filing subsequent to the instant pleading.

³ - Comments of Rocco Conte, WU2M; See also Comments of Jeffrey Miller.

modes⁵, encourage the development of software defined radio⁶, meteor scatter⁷, new Transatlantic challenges⁸ or as Vincent Weal states, it will “expand and enhance technical knowledge and the radio arts”.⁹ Commenters have also cited the band’s unique propagation characteristics¹⁰ and its usefulness for weak signal, limited bandwidth modes like FT8 and FT4.¹¹ Others feel that Amateur 8-meter experimentation could provide the Government and military with valuable insight and data through research and experimentation.¹² Most importantly, it will provide additional opportunities to encourage “makers” to explore propagation and to develop the equipment to do so, thus further advocating the advancement of STEM.¹³

⁴ - Comments of Barry E. Butz, N8PPF; See also Comments of Philip Blaisdell.

⁵ - Comments of Geoff Mark.

⁶ - Comments of David Bushong.

⁷ - Comments of Kazimierz Siwiak.

⁸ - Comments of Bob Hinesl; see also Comments of Charles Adkinson.

⁹ - Comments of Vincent Weal; see also Comments of Matthew Lafayette; see also Comments of James S. Currier.

¹⁰ - Comments of William F. Osler, K0RGR; see also Comments of Reid Crowe.

¹¹ - Comments of Eric Haskett; see also Comments of Lawrence Brett Glass, WY7BG; see also Comments of Michael J. Schaffer.

¹² - Comments of Aaron Mitchell.

¹³ - Comments of Matthew Lafayette (“An 8-meter band would welcome amateur radio operators who wish to design and assemble their own equipment for this particular frequency band. The proposed allocation would be excellent for educating American students on current and future digital communications modes as an alternative to using commercially produced equipment for similar operations on other frequency bands.”)

III. AMATEUR OPPOSITION ARISES FROM MISUNDERSTANDING OF THE PROPOSAL

A. Each band has a purpose

3. Those who oppose the petition seem to feel that the existing VHF bands are underutilized and thus, no new spectrum is desired.¹⁴ Others have questioned whether there is some form of commercial motivation for the instant petition.¹⁵ First and most importantly, the *Petition for Rulemaking* has no commercial motivation whatsoever. REC Networks does provide professional services surrounding the FM broadcast service and not the amateur service.¹⁶ REC also also engaged in advocacy on a non-profit basis for low-power FM (LPFM) broadcast, rural commercial broadcasting, “hobby” broadcasting¹⁷ and efforts to assure that spectrum is still available to the common citizen. Amateur radio is solely a hobby for the petitioner and the spectrum request is consistent with REC’s positions on expanding citizen access to spectrum. The petitioner is also a dual citizen of the United States and Ireland and therefore also keeps up with matters taking place in Region 1. REC/KU3N sees this opportunity to plant the seed for future Transatlantic propagation opportunities in what could be considered as “undesirable” spectrum for commercial and even public sector use which could accelerate its deployment as a secondary amateur allocation on both sides of the Atlantic. Unlike 6 meters, 8 meters was conceived with a specialty purpose in mind, a band for lower powered narrowband operations utilizing emerging amateur radio technologies in a manner that could be compatible with any existing Federal Government operations.¹⁸ As discussed in paragraph 5 *supra*, this

¹⁴ - Comments of Jerry Materne; See also Comments of Henry Anderson; See also Comments of Charles Vest (also cites that despite the lack of current amateur equipment, development of new equipment will be discouraged due to a lack of harmonic. We note that 6-meters is not harmonically related to the 10-meter band. In addition, we do note that transverters which permit the use of 40 MHz using the 10 meter (28 MHz) band are already being produced (see: <http://transverters-store.com/40mhz.htm>).

¹⁵ - Comments of Ron Anderson, WB9YZU.

¹⁶ - See <https://recnet.com/pro>

¹⁷ - “Hobby” broadcasting consists of the use of short-range devices that operate in the 535~1705 kHz band in accordance with 47 C.F.R. §§ 15.219 and 15.221 and in the 88~108 MHz band in accordance with 47 C.F.R. §15.239 but not including unlicensed unauthorized operation in contravention with Section 301 of the Communications Act, 47 U.S.C. §301.

¹⁸ - REC/KU3N’s proposal to start the band at 40.51 MHz was intended intended to avoid 40.50 MHz, which is not only the third harmonic to distress frequency 121.5 MHz. At one time, 40.50 MHz was designated military joint common frequency to be used as a last resort and for search and rescue purposes. [Cont’d.]

petition was never intended to be for channelized FM operation. Channelized FM operation is best handled in bands like 6 meters and better yet, on 2 meters, a band that is currently being threatened in ITU Region 1.

B. Band planning is performed by amateurs, not the Commission

4. Some have expressed concerns about how the band could be utilized and that there should be separate sections for voice, data, and other modes.¹⁹ Like with all modern amateur allocations, the planning for the band is best left to the amateur radio community as a whole to determine what is best for the band.²⁰ REC/KU3N notes that there has been significant planning taking place in ITU Region 1 on how this band could be utilized and it would be in the best interest of primary goal of the 8-meter proposal that the voluntary band plan in both Regions 1 and 2 be harmonized. We must note that it may be possible that if the NTIA does endorse any operation in the 8-meter band, it may impose restrictions including operating power, antenna directionality, operating frequency and operating mode.

C. Striking a balance between Federal Government need and the promotion of science

5. Some commenters expressed concerns of why not enough spectrum was requested and felt that repeater operation should be permitted in the spectrum.²¹ Since the 40 MHz spectrum is primary to the Federal Government (NTIA), the Government would have the final

See *Manual of Regulations and Procedures for Federal Radio Frequency Management*, National Telecommunications and Information Administration (“*NTIA Redbook*”) (2009 ed.) at §7.5.3(2). We note that in the 2017 revision to the *Redbook*, this specific application for 40.50 MHz no longer appears. The removal of this allocation does bring into question the military’s priorities in this spectrum. We note that even if the NTIA and Commission were to agree to allow operation in spectrum that would include a center frequency of 40.50 MHz, band plans in the amateur community are recommended to avoid that frequency. We note that the Irish IRTS 8 meter band plan already includes a warning about using 40.50 MHz due to being a third harmonic to distress communications.

¹⁹ - Comments of Truman Lindsey, N6TRU; Also see Comments of Alfredo Mirambeaux.

²⁰ - In Appendix B of the *Petition for Rulemaking*, I placed a copy of the IRTS Ireland 8-meter band plan slightly modified for the United States. As the band planning for the Amateur Radio Service is performed by the amateur community and not the Commission, it is shown for information only in order to strike a balance between a harmonized band planning with Region 1 and to assure that as many modes are available in a compact band. The full IRTS band plan for Ireland extends between 40~42 MHz.

²¹ - Comments of Rex Mauldin; Also see Comments of Arthur Elliot (advocating opening entire band from 30~49.9995 MHz to the Amateur service).

say. Unlike other bands used for land mobile services, the VHF low band (25~50 MHz) was never given a mandate to convert to narrowband operations nor even considered.²² In the private land mobile services, channels are normally assigned every 20 kHz.²³ The same holds true for federal operations on 40~41 MHz.²⁴ It is important to remember that the primary purpose of the 8-meter band is to foster Transatlantic experimentation and to participate in the weak signal and other related activities in ITU Region 1. This proposal was never intended to be another FM band. REC/KU3N does recognize that there is a large amount of surplus land mobile radio equipment that would be a perfect fit for this spectrum, however, REC/KU3N feels that the use of wider-bandwidth FM services in this spectrum, even if splintered 10 kHz from the NTIA channelized plan would be an incompatible use of spectrum. The goal of this spectrum is narrowband, weak signal with a focus on directionality towards Region 1. REC/KU3N hopes that as more low-band use is abandoned that unwanted spectrum can be set aside for amateur use. The use of the low band spectrum for channelized FM would have an excellent application for disaster communications, especially given the amount of surplus FM equipment that is available. If REC/KU3N can identify non-federal spectrum that has no loading and no plans of any future loading, then we can discuss a reallocation or the addition of a secondary use in a future proceeding.

²² - Narrow-banding was never proposed for the 25-50 MHz band. See *Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them*. Notice of Proposed Rulemaking. 7 FCC Rcd. 8105, 8107-8108 at ¶¶ 7-10.

²³ - See 47 C.F.R. §§ 90.20(c)(3) and 90.35(b)(3).

²⁴ - See *NTIA Redbook* (Sep. 2017 ed.) at §4.3.6.

IV. CONCLUSION

6. REC/KU3N recognizes that there is Federal Government usage of this band. Most of the use of this band seems to be focused in the west where larger land areas are under the control of the Department of the Interior. We are also aware that this spectrum is also used for snow measurement, mainly focused in the northwest. In contrast, the more likely users of 8 meters will be the focused towards the eastern portion of the United States in order to engage in Transatlantic operations. The requested restriction on repeater operation is consistent with other band segments set aside for weak signal work. This proposal is around lower-powered narrow band digital operations as well as CW and single-sideband operations as opposed to channelized wide-band FM, which may conflict with existing Federal operations. We also note that this band may be used at times for military purposes.²⁵ REC/KU3N does recognize the long-standing relationship of sharing between amateurs and military operations in other frequency bands. This petition was intended to spark conversation between the Commission, the NTIA and the amateur community, especially in light of the recent developments in Europe and to encourage creative and productive use of the spectrum. REC/KU3N supports the creation of a secondary amateur radio service allocation at 8 meters.

Respectfully submitted,

/S/

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Founder

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²⁵ - See *NTIA Redbook* (2017 Ed.) at § 7.15.4.